

## REMARKS

Applicants appreciate the thorough examination of the present application as evidenced by the Office Action of April 2, 2008 (hereinafter "Office Action"). In particular, Applicants appreciate the Examiner's indication of allowable subject matter in Claim 8.

In response, Applicants have rewritten Claim 8 in independent form including all the limitations of the base claims and any intervening claims. Also, new Claims 15-20, which depend from Claim 8 and include recitations corresponding to original Claims 2, 4, 5, and 9-11, have been added. Applicants submit that these claims are patentable at least per the patentability of Claim 8 from which they depend. As such, Applicants submit that Claims 8 and 15-20 are now in condition for allowance.

Applicants have also amended independent Claims 1 and 13 to clarify that the ground plane and the antenna element "are provided from a unitary piece of material". Support for these amendments can be found, for example, in Figure 5 of the present application. Claim 2 has also been amended to correct minor errors therein, and new Claim 14 has been added, which includes recitations similar to those of original Claim 8. No new matter has been added.

Accordingly, Applicants hereby request further consideration of the application in view of the amendments above and the comments that follow.

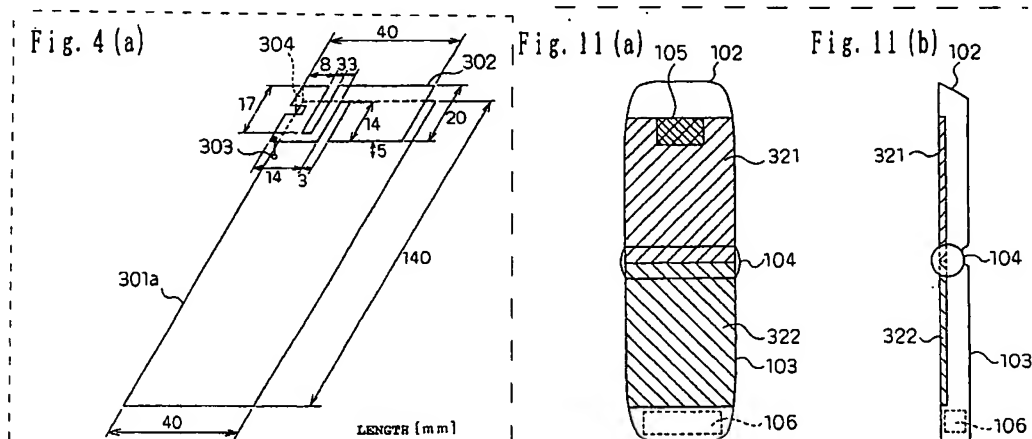
### **Independent Claims 1 and 13 Are Patentable Over Iwai**

Claims 1-5 and 9-13 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0117324 to Iwai et al. (hereinafter "Iwai"). Claim 1, for example, recites:

1. A portable communication device comprising:  
an antenna feeding circuit;  
a first part having a hollow interior and a main section having a width, length and a first height and including a plurality of electrical elements; and  
an antenna system comprising:

a ground plane located within and extending along the width and the length of the main section; and  
 an antenna element located within the first part,  
 wherein the ground plane is provided in one piece, wherein the plurality of electrical elements of the first part includes radio transmission elements electrically connected to said ground plane, **wherein the ground plane and the antenna element are provided from a unitary piece of material** on a same substrate, **and wherein the antenna element is distanced from the ground plane by at least approximately the first height** in a height direction of the first part. (*Emphasis added*).

Applicants respectfully submit that the cited portions of Iwai fail to disclose or suggest at least the recitations of Claim 1 highlighted above. Cited Figures 4a and 11a-11b of Iwai are provided below for the Examiner's convenience:



Iwai, Figs. 4a and 11a-11b. Figure 4a of Iwai illustrates an internal view of the antenna structure of Iwai, while Figures 11a-11b illustrate the antenna structure within the mobile terminal housing. The Office Action relies on elements 301, 321, and/or 322 as disclosing the ground plane of Claim 1, and elements 302, 105, and/or 106 as disclosing the antenna element of Claim 1. See Office Action, page 2 and Iwai, Figs. 4a-4b and 11a-11c.

However, nowhere do the cited portions of Iwai disclose or suggest that the ground planes 301a/321/322 and the corresponding antenna elements 302/105/106 **are provided from a unitary piece of material**. See Iwai, Figs. 4a and 11a-11c. For example, as shown above, the antenna element 302 is not provided from the same unitary piece of material as bottom board 301a;

rather, elements 302 and 304 are separate pieces. *See* Iwai, Fig. 4a. Indeed, as discussed in Iwai, "the short-circuit part 304 is provided on an end of bottom board 301a..., and the antenna element 302 is supported by the short-circuit part 304". Iwai, Paragraph 0227. Likewise, the antenna elements 105 and 106 are provided from different pieces of material than the corresponding metal parts 321 and 322, respectively. *See* Iwai, Figs. 11a-11c. Nor do the cited portions of Iwai disclose or suggest that the antenna elements 302/105/106 and the corresponding elements 301a/321/322 are separated by at least the height of the housing 102/103. For example, as shown in Figure 11b, the antenna element 106 appears to be positioned relatively closely to the metal part 322, and as such, is not separated from the ground plane 322 by any of the dimensions of the housing 103. *See* Iwai, Fig. 11b.

Accordingly, as Iwai fails to disclose or suggest several of the recitations of Claim 1, Applicants submit that Claim 1 is patentable over Iwai for at least these reasons. Claim 13 include similar recitations, and is thus patentable for at least similar reasons. Also, dependent Claims 2-7, 9-12, and 14 are patentable at least per the patentability of Claims 1 and 13 from which they depend.

#### **Many of the Dependent Claims Are Separately Patentable**

While each of the dependent claims is patentable as depending from a patentable base claim, as noted above, Applicants submits that many of the dependent claims are also separately patentable.

For example, Claim 7 recites, in part, that "a portion of the ground plane extends into the hinging section." The Office Action concedes that Iwai fails to disclose or suggest these recitations, and as such, relies on Figures 5-7 of U.S. Patent Application Publication No. 2001/0040529 to Cheng et al. (hereinafter "Cheng") as disclosing these recitations. *See* Office Action, page 4. However, Applicants respectfully submit that, while Cheng may illustrate a hinging section 534 that includes an antenna element 6 therein, nowhere do the cited portions of Cheng disclose or suggest that a portion of a one-piece ground plane extends into the hinging section 534. *See* Cheng, Figs. 5-7. Thus, Applicants submit that Claim 7 is separately patentable for at least these reasons.

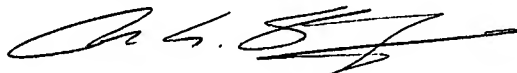
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Also, new Claim 14 recites, in part, that " the ground plane includes a bent section that is bent away from a portion of the ground plane in the main section for providing an increased distance between the ground plane and the antenna element", as similarly recited by allowable Claim 8. However, nowhere do the cited portions of Iwai and/or Cheng disclose or suggest a ground plane including such a bent section. *See* Iwai, Figs. 4a-4b and 11a-11c and Cheng, Figs 5-7. Accordingly, Applicants submit that new Claim 14 is separately patentable for at least these reasons.

### **Conclusion**

Accordingly, in light of the above amendments and remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. Thus, Applicants respectfully request allowance of the pending claims and passing the application to issue. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

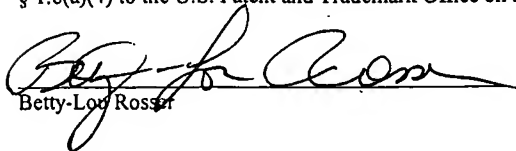


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### **CERTIFICATION OF TRANSMISSION**

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Betty-Lou Rosser